

CLAIMS

1. A method of interacting with a human user through a sound service system, wherein the service system participates with the human user both in normal voice dialog exchanges, and in a multi-turn sound exchange the form and content of which are pre-specified and already public, this sound exchange involving one or more cycles in each of which the service and user take turns to provide a noise or utterance with the appropriate pre-specified content.
2. A method according to claim 1, wherein the multi-turn sound exchange serves no function in respect of restricting access to, or controlling the course of, the normal dialog exchanges.
3. A method according to claim 1, wherein the multi-turn sound exchange are of a promotional nature.
4. A method according to claim 1, wherein the multi-turn sound exchange is initiated by the service system.
5. A method according to claim 1, wherein the multi-turn sound exchange is initiated by the human user.
6. A method according to claim 5, wherein the multi-turn sound exchange is initiated at any time during the course of the normal dialog exchanges.
7. A method according to claim 1, wherein the service system uses the same dialog manager for the normal voice dialogs and the multi-turn sound exchanges with each being effected according to a corresponding script run by the dialog manager as required.
8. A method according to claim 1, wherein the service system uses a respective manager for the normal voice dialogs and the multi-turn sound exchanges with control passing between the two managers as required, each manager when in control effecting this control

according to a corresponding script.

9. A method according to claim 8, including the step of the user inputting a sound corresponding to the start of a particular multi-turn sound exchange whilst the voice dialog manager is in control, the service system recognising this sound and putting the multi-turn dialog manager in control to run the script corresponding to said particular multi-turn sound exchange.

10. A method according to claim 9, wherein the service system is adapted to recognise and distinguish between sounds corresponding to multiple different multi-turn sound exchanges.

11. A method according to claim 8, including the step of the user inputting a sound, whilst the multi-turn dialog manager is in control, indicative that the user wishes to exit the current multi-turn sound exchange, the service system recognising this sound and putting the voice dialog manager in control to run an appropriate voice dialog script.

12. A method according to claim 8, wherein the scripts for the voice dialog manager and multi-turn dialog manager are independently loaded.

13. A method according to claim 8, wherein the voice service system comprises a voice browser for interpreting scripts provided by voice sites hosted by page servers, one or more multi-turn sound exchange scripts being loaded to the multi-turn dialog manager upon a user first contacting a said voice site and remaining loaded whilst the user browses the voice pages of the site, the currently-visited voice page of the site being loaded to the voice dialog manager.

14. A method according to claim 1, wherein the multi-turn sound exchange includes, or is constituted by, non-word sounds.

15. A method according to claim 1, wherein the multi-turn sound exchange is of a looping nature and terminates in response to at least one of:

- explicit user request;
- timeout of a predetermined time from commencement of the exchange;
- execution of a preset number of cycles.

5 16. A method according to claim 1, wherein the user's input during at least one turn of the multi-turn sound exchange, is used to determine which of two or more branches in the service system's part of the multi-turn sound exchange is taken by the service system.

10 17. A method according to claim 1, wherein the user's input during at least one turn of the multi-turn sound exchange, is used to determine the identity of a voice dialog script followed by the service system following termination of the multi-turn sound exchange.

15 18. A method of interacting with a human user through a sound service system, wherein the service system participates in a multi-turn sound exchange with the user, this sound exchange involving one or more cycles in each of which the service and user take turns to provide a noise or utterance the form or content of which is already public.

20 19. A sound service system comprising a sound input channel for receiving and interpreting sound input signals, a sound output channel for generating sound output signals, and a dialog manager connected to an output of the sound input channel and an input of the sound output channel, the dialog manager being operative to manage the participation of the service system in exchanges with a user and comprising:

- means for managing participation of the service system in normal voice dialog exchanges with the user, and
- 25 - means for managing participation of the service system in a multi-turn sound exchange with the user, the form and content of this exchange being pre-specified and already public, and the exchange involving one or more cycles in each of which the service and user take turns to provide a noise or utterance with the appropriate pre-specified content.

in a multi-turn sound exchange with a human user that involves one or more cycles in each of which the service and user take turns to provide a noise or utterance the form or content of which is already public.

5 **20.** A sound service system according to claim 19, wherein the multi-turn sound exchange serves no function in respect of restricting access to, or controlling the course of, the normal dialog exchanges.

10 **21.** A sound service system according to claim 19, wherein the multi-turn sound exchange are of a promotional nature.

15 **22.** A sound service system according to claim 19, wherein the dialog manager includes initiation means for initiating a multi-turn sound exchange under the control of the corresponding said means for managing, the initiation means being operative to initiate a multi-turn sound exchange in response to an input by the human user made at any time during the course of a said normal voice dialog exchange.

20 **23.** A sound service system comprising:

- a sound input channel for receiving and interpreting sound input signals;
- a sound output channel for generating sound output signals,
- a voice service manager connected to the output side of the sound input channel and the input side of the sound output channel, the voice service manager serving to manage normal voice dialog interactions with a human user;
- a multi-turn dialog manager connected to the output side of the sound input channel and the input side of the sound output channel, the multi-turn dialog manager being operative to manage the participation of the service system in a multi-turn sound exchange with a human user that involves one or more cycles in each of which the service and user take turns to provide a noise or utterance; and
- a changeover controller for switching control between the voice service manager and the multi-turn dialog manager.

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24. A sound service system according to claim 23, wherein the multi-turn sound exchange

serves no function in respect of restricting access to, or controlling the course of, the normal dialog exchanges.

25. A sound service system according to claim 23, wherein the multi-turn sound exchange
5 are of a promotional nature.

26. A sound service system according to claim 23, wherein the changeover controller is
operative, whilst the voice dialog manager is in control, to recognise user input of a sound
corresponding to the start of a particular multi-turn sound exchange, and to thereupon
10 cause the multi-turn dialog manager to assume control and participate in said particular
multi-turn sound exchange.

27. A sound service system according to claim 26, wherein the changeover controller is
adapted to recognise and distinguish between sounds corresponding to multiple different
15 multi-turn sound exchanges.

28. A sound service system according to claim 23, wherein the changeover controller is
operative, whilst the multi-turn dialog manager is in control, to recognise user input of a
sound indicative that the user wishes to exit the current multi-turn sound exchange, and to
20 thereupon cause the voice service manager to assume control.

29. A sound service system according to claim 23, wherein the multi-turn sound exchange
includes, or is constituted by, non-word sounds, the system including specific means for
recognising and/or generating said non-word sounds.

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